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Keywords: DS1213, DS1623, SmartSocket, NVSRAM, nv sram, smart socket

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APPLICATION NOTE 4

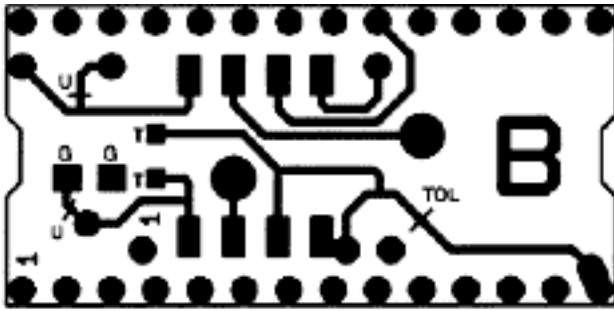
DS1213, DS1613 SmartSocket Options

Abstract: The DS1213 and DS1613 SmartSockets have a standard 5V power supply tolerance of $\pm 5\%$ and can be used with only specific density SRAMs. This application note describes how to modify these devices to operate at $5V \pm 10\%$ and to support higher density SRAMs.

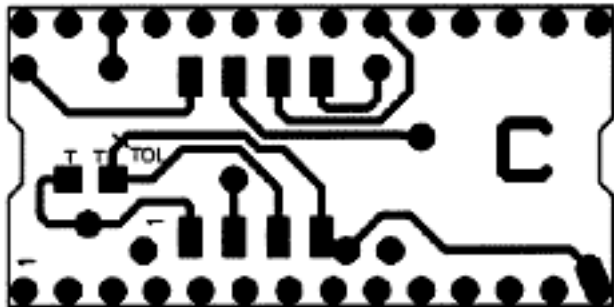
Smartsocket Options

The DS1213 SmartSocket product family is designed to accept several user modifications. Please review the DS1213 data sheet for normal operation before modification.

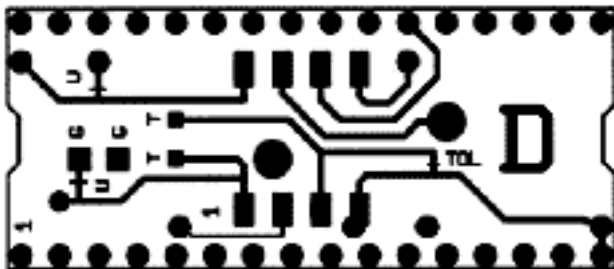
DS1213 Smartsocket Options



DS1213B



DS1213C



DS1213D

Figure 1. DS1213 Smartsocket family.

Option 1: Power Supply Tolerance

The standard DS1213 socket products are manufactured such that power-fail detection occurs between 4.75V and 4.50V, giving a 5% supply operating range. This range can be changed to a 10% supply with power-fail detection occurring between 4.50V and 4.25V. Follow the procedure below:

- cut metal trace labeled "TOL"
- short together metal tabs labeled "T"

Option 2: Density Upgrade

This option applies to the DS1213B and DS1213D SmartSockets only. The DS1213B can be upgraded from 8k x 8 to 32k x 8 memory and the DS1213D can be upgraded from 128k x 8 to 512k x 8 memory by performing the following:

- cut metal traces identified by a hash mark labeled "U"
- short together square metal pads labeled "G"

Application Note 4: <http://www.maxim-ic.com/an4>

More Information

For technical questions and support: <http://www.maxim-ic.com/support>

For samples: <http://www.maxim-ic.com/samples>

Other questions and comments: <http://www.maxim-ic.com/contact>

Related Parts

DS1213B: [QuickView](#) -- [Full \(PDF\) Data Sheet](#) -- [Free Samples](#)

DS1213C: [QuickView](#) -- [Full \(PDF\) Data Sheet](#) -- [Free Samples](#)

DS1213D: [QuickView](#) -- [Full \(PDF\) Data Sheet](#) -- [Free Samples](#)

AN4, AN 4, APP4, Appnote4, Appnote 4

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